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PATENT & TRADEMARK OFFICE

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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	10/814,382
Filing Date	March 31, 2004
First Named Inventor	Das, et. al.
Group Art Unit	2171
Examiner Name	N/A
Attorney Docket Number	307517.01

☐ Sent via Express Mail
Label No.:

ENCLOSURES *(check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☐ Amendment / Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☒ Information Disclosure Statement with Form PTO/SB/08Aand PTO/SB/08B (6 pages)
- ☐ Response to Notice to File Missing Parts
  - ☐ A copy of the Notice to File Missing Parts Under 37 CFR 1.52 or 1.5

CERTIFICATE OF MAILING OR TRANSMISSION
(Under 37 CFR § 1.8(a))

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August 17, 2005
Date

Signature

Paul Heynssens
Printed Name

- ☐ Assignment Papers *(for an Application)*
- ☐ Drawing(s) (sheets)
- ☐ Declaration
  - ☐ Newly Executed (pages)
  - ☐ A copy from a prior application (37 CFR 1.63(d)) (pages)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ General Power of Attorney (SB80)
  - ☐ 37 CFR 3.73(b) Statement
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☒ CD, Number of CD(s) 1

- ☐ After Allowance Communication to TC
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
- ☐ Proprietary Information
- ☐ Status Letter
- ☐ Application Data Sheet
- ☐ Request for Corrected Filing Receipt
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Remarks ☒ The Commissioner is hereby authorized to charge any additional fees required, or credit any overpayments, to Deposit Account No. 50-0463 for the above identified patent application.

SIGNATURE OF ATTORNEY OR AGENT

Signature		Reg. No.	47,648
Name of Attorney or Agent	Paul Heynssens		
Date	August 17, 2005	Tel.	(425) 707-3913
		Facsimile No.	(425) 708-5046
Assignee Name:	MICROSOFT CORPORATION ONE MICROSOFT WAY REDMOND, WA 98052		
Customer Number:	22971		

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: Das, et. al. Attorney Docket No.: 307517.01
Application No.: 10/814382 Group Art Unit: 2171
Filed: 03/31/2004 Examiner: N/A
Customer No.: 22971 Confirmation Number: 5509
Title: Block-Level Sampling in Statistics Estimation

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Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

STATEMENT FILED PURSUANT TO
THE DUTY OF DISCLOSURE UNDER 37 C.F.R. §§ 1.56, 1.97 AND 1.98

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§ 1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

This Information Disclosure Statement has been filed before the mailing date of a first Office Action on the merits in the above-identified case. Accordingly, no fee or certification is required.

The Applicant hereby makes of record in the above-identified application the information listed on the attached form PTO/SB/08A & 08B; wherein the listed cited references are located in a CD-R which accompanies this IDS. The order of presentation of the references should not be construed as an indication of the importance of the references. Documents cited on the attached form PTO/SB/08A & 08B are enclosed in a CD-R unless otherwise indicated. It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;

2. The enclosed forms be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;

3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. § 102.

Notwithstanding any statement by the Applicant, the Applicant urges the Examiner to form his own conclusion regarding the relevance of the cited information. An early and favorable action is hereby requested.

Respectfully submitted,

MICROSOFT CORPORATION

Date: August 17, 2005
Microsoft Corporation
Redmond, WA 98052

By: _____
Paul B. Heynssens, Reg. No.: 47,648
Telephone: (425) 707-3913

CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]

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Paul B. Heynssens
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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 4

Title Of Invention	Block-Level Sampling in Statistics Estimation
Application Number	10/814,382
Filing Date	03/31/2004
First Named Inventor	Das, et. al.
Art Unit	2171
Examiner Name	N/A
Attorney Docket Number	307517.01

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	U.S. Patent Document Number - Kind Code[2] *(if known)*	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A	US-6278989	08/21/2001	Chaudhuri, et. al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] Number[4] *(if known)* Kind Code[5]	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	B					

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
	C	J. Bunge and M. Fitzpatrick. Estimating the Number of Species: A Review. Journal of the American Statistical Association 88(1993): 364—373.	
	D	K.P. Burnham and W.S. Overton. Estimation of the size of a closed population when capture possibilities vary among animals. Biometrika 65(1978): 625—633.	
	E	K.P. Burnham and W.S. Overton. Robust estimation of population size when capture possibilities vary among animals. Ecology 60(1979): 927—936.	

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Applicant's unique citation designation number (optional). [2] See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
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	F	A. Chao. Nonparametric estimation of the number of classes in a population. Scandinavian Journal of Statistical Theory and Applications 11(1984): 265—270.	
	G	S. Chaudhuri and V. Narasayya. An Efficient, Cost-Driven Index Selection Tool for Microsoft SQL Server. In Proc. 23rd VLDB, 1997.	
	H	S. Finkelstein, M. Schkolnick, and P. Tiberio. Physical Database Design for Relational Databases. ACM TODS, 13(1988): 91—128.	
	I	P.B. Gibbons, Y. Matias, and V. Poosala. Fast Incremental Maintenance of Approximate Histograms. In Proc. 23rd VLDB, pages 466—475, 1997.	
	J	L.A. Goodman. On the estimation of the number of classes in a population. Annals of Mathematical Statistics 20(1949): 572—579.	
	K	P.J. Haas, J.F. Naughton, S. Seshadri, and L. Stokes. Sampling-based estimation of the number of distinct values of an attribute. In Proc. 21st VLDB, pages 311— 322, 1995.	
	L	P.J. Haas and A.N. Swami. Sequential Sampling Procedures for Query Size Estimation. In Proc. ACM SICMOD Conference, pages 341—350, 1992.	
	M	W. Hou, C. Ozsoyoglu, and E. Dogdu. Error-Constrained COUNT Query Evaluation in Relational Databases. In Proc. ACM SIGMOD Conference, pages 278—287, 1991.	

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	N	W. Hou, C. Ozsoyoglu, and B. Taneja. Statistical estimators for relational algebra expressions. In Proc. 7th ACM Symposium on Principles of Database Systems, pages 276—287, 1988.	
	O	W. Hou, C. Ozsoyoglu, and B. Taneja. Processing aggregate relational queries with hard time constraints. In Proc. ACM SIGMOD Conference, pages 68-77, 1989.	
	P	Y. Ioannidis and V. Poosala. Balancing Histogram Optimality and Practicality for Query Result Size Estimation. In Proc. ACM SIGMOD Conference, pages 233—244, 1995.	
	Q	Y. Ioannidis and V. Poosala. Histogram-Based Solutions to Diverse Database Estimation Problems. IEEE Data Engineering Bulletin 18(1995): 10-18.	
	R	Y. Ling and W. Sun. An Evaluation of Sampling-Based Size Estimation Methods for Selections in Database Systems. In Proc. IEEE Conference on Data Engineering, pages 532—539, 1995.	
	S	R.J. Lipton and J.F. Naughton. Query Size Estimation by Adaptive Sampling. In Proc. ACM PODS, pages 40—46, 1990.	
	T	R.J. Lipton, J.F. Naughton, and D.A. Schneider. Practical Selectivity Estimation through Adaptive Sampling. In Proc. ACM SIGMOD Conference, pages 1—11, 1990.	
	U	R.J. Lipton, J.F. Naughton, D.A. Schneider, and S. Seshadri. Efficient Sampling Strategies for Relational Database Operations. Theoretical Computer Science 116(1993): 195—226.	

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	V	J.F. Naughton and S. Seshadri. On Estimating the Size of Projections. In Proc. Third International Conference on Database Theory, pages 499—513, 1990.	
	W	F. Olken. Random Sampling from Databases. PhD Thesis, Computer Science, U.C. Berkeley, 1993.	
	X	F. Olken and D. Rotem. Random Sampling from Databases — A Survey. Manuscript, 1994.	
	Y	C. Ozsoyoglu, K. Du, A. Tjahjana, W. Hou, and D.Y. Rowland. On estimating COUNT, SUM, and AVERAGE relational algebra queries. In Proc. Conference on Database and Expert Systems Applications, pages 406—412, 1991.	
	Z	V. Poosala, Y. Ioannidis, P. Haas, and E. Shekita. Improved Histograms for Selectivity Estimation of Range Predicates. In Proc. ACM SIGMOD Conference, pages 294—305, 1996.	
	AA	C. Piatetsky-Shapiro and C. Connell. Accurate estimation of the number of tuples satisfying a condition. In Proc. ACM SIGMOD Conference, pages 256—276, 1984.	
	BB	P.C. Selinger, D.D. Astrahan, R.A. Chamberlain, R.A. Lone, and T.G. Price. Access path selection in a relational database management system. In Proc. ACM SIGMOD Conference, pages 23—34, 1979.	

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